

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of operating a packet data multicast communication system comprising a first station and a plurality of second stations, the first and second stations having transceiving equipment for communication between the first and second stations, the method comprising:

the first station transmitting a data packet and at least one of the plurality of the second stations receiving the data packet, wherein the at least one of the plurality of the second stations measuring the quality of reception of the received data packet, and

determining at the plurality of second stations into which one of at least three predetermined quality ranges the measured quality falls to selective prioritize transmitter behaviour based on the measured quality,

wherein the first station adopts a respective subsequent transmitter behaviour in response to ~~each~~ any of the at least three predetermined quality ranges reported by each of the respective plurality of second stations,

wherein the subsequent transmitter behaviour corresponding to at least two non-contiguous ones of the quality ranges is identical,

wherein the subsequent transmitter behaviour includes adjusting at least one transmitter parameter of the first station such that the at least one transmitter parameter

Application Serial No. 10/586,806 (1320-121); Attorney Docket No. 2004P00083WOUS

- 2 -

corresponding to the at least two non-contiguous ones of the quality ranges is identical;
and

wherein the data packets falling into one quality range ~~directly~~ influence concurrent or subsequent retransmission decisions regarding the data packets falling into another quality range.

2. (Original) A method as claimed in claim 1, characterised by the second station transmitting indicia representative of the quality ranges other than said at least two non-contiguous quality ranges.

3. (Previously Presented) A method as claimed in claim 1, characterised by the second station transmitting indicia representative of the quality ranges in respect of each of the at least two non-contiguous quality ranges.

4. (Previously Presented) A method as claimed in claim 1, characterised in that the at least two non-contiguous quality ranges are the best and the worst quality ranges.

5. (Previously Presented) A method as claimed in claim 1, wherein the measuring of the quality of reception of the received data packet is characterised by comparison of a measure of a predetermined quality metric of a received signal with at least three quality ranges.

Application Serial No. 10/586,806 (1320-121); Attorney Docket No. 2004P00083WOUS

6. (Previously Presented) A method as claimed in claim 5, characterised in that the quality ranges are defined by threshold values applied by respective second stations.

7. (Original) A method as claimed in claim 5, characterised in that the quality ranges are defined by threshold values signalled to the second stations by the first station.

8. (Previously Presented) A method as claimed in claim 5, characterised in that the predetermined quality metric comprises at least one of: E_b/N_0 (energy per bit/noise density); the number of data packets received successfully in a predetermined time window; the proportion of data packets previously received correctly out of a group of predetermined number of packets; and the received SIR (Signal to Interference Ratio) or SNR (Signal to Noise Ratio) of another received signal.

9. (Original) A method as claimed in claim 8, characterised in that the quality of reception of the received data packet is determined during a predetermined duration.

10. (Previously Presented) A method as claimed in claim 1, characterised in that the first station adjusts one or more transmission parameters to ensure that at least a

Application Serial No. 10/586,806 (1320-121); Attorney Docket No. 2004P00083WOUS

predetermined percentage of secondary stations receive a data packet data service satisfactorily.

11. (Original) A method as claimed in claim 10, characterised in that the transmission parameters comprise one or more of: number of retransmissions; transmit power; spreading factor; code rate; and modulation scheme.

12. (Previously Presented) A method as claimed in claim 2, characterised in that different of the indicia are distinguished by transmission at different times.

13 (Previously Presented) A method as claimed in claim 2, characterised in that different of the indicia are distinguished by different code words.

14. (Previously Presented) A method as claimed in claim 2, characterised in that different of the indicia are distinguished by different frequency channels.

15. (Currently Amended) A packet data multicast communication system comprising:

a first station and a plurality of second stations, the first and second stations having transceiving equipment for communication between the first and second stations, the first station having means for transmitting data packet, and the second stations having means for receiving the data packet,

Application Serial No. 10/586,806 (1320-121); Attorney Docket No. 2004P00083WOUS

- 5 -

wherein the second stations having means for measuring the quality of reception, means for determining, at the plurality of second stations, into which one of at least three predetermined quality ranges the measured quality falls to selectively prioritize transmitter behaviour based on the measured quality, and in that the first station has means for adopting a respective subsequent transmitter behaviour in response to each any of the at least three predetermined quality ranges reported by each of the respective plurality of second stations, the subsequent transmitter behaviour corresponding to at least two non-contiguous ones of the quality ranges being identical, and

wherein the subsequent transmitter behaviour includes adjusting at least one transmitter parameter of the first station such that the at least one transmitter parameter corresponding to the at least two non-contiguous ones of the quality ranges is identical, and

wherein the data packets falling into one quality range directly influence concurrent or subsequent retransmission decisions regarding the data packets falling into another quality range.

16. (Previously Presented) A system as claimed in claim 15, characterised in that the means for measuring the quality of reception is adapted to compare a measure of a predetermined quality metric of a received signal with at least three quality ranges.

17. (Previously Presented) A system as claimed in claim 15, characterised in that the first station has means for adjusting one or more transmission parameters to ensure that at least a predetermined percentage of second stations receive a data packet.

18. (Original) A system as claimed in claim 17, characterised in that the transmission parameters comprise one or more of: number of retransmissions; transmit power; spreading factor; code rate; or modulation scheme.

19. (Currently Amended) A second station for use in a packet data multicast communication system, said communication system comprising a first station and a plurality of second stations,

~~a first station and a plurality of second stations,~~ the second station having:

transceiving equipment for communication between the first and second stations and means for receiving a data packet transmitted by the first station,

wherein the second station having means for measuring the quality of reception, and by means for determining into which one of at least three predetermined quality ranges the measured quality falls to selectively prioritize transmitter behaviour based on the measured quality, wherein each of the at least three predetermined quality ranges reported by the second station represents a respective subsequent transmitter behaviour of the first station and wherein the subsequent transmitter behaviour corresponding to at least two non-contiguous ones of the quality ranges is identical, and

Application Serial No. 10/586,806 (1320-121); Attorney Docket No. 2004P00083WOUS

- 7 -

wherein the subsequent transmitter behaviour includes adjusting at least one transmitter parameter of the first station such that the at least one transmitter parameter corresponding to the at least two non-contiguous ones of the quality ranges is identical, and

wherein the data packets falling into one quality range directly influence concurrent or subsequent retransmission decisions regarding the data packets falling into another quality range.

20. (Previously Presented) A second station as claimed in claim 19, characterised in that the means for measuring the quality of reception is adapted to compare a measure of received data packet quality with a predetermined quality metric.